

	Predicted: ZERO	Predicted: ONE	
True Label: ZERO	TN	FP	All True Negatives
True Label: ONE	FN	TP	All True Positives
	All Predicted Negatives	All Predicted Positives	

False Positive Rate = 1 - Specificity

$$\text{Specificity} = \frac{TN}{TN+FP}$$

% of True Negatives detected correctly  
Specificity is recall for Zero class

$$\text{Recall} = \frac{TP}{TP+FN} = \text{Sensitivity}$$

% of True Positives detected correctly  
a.k.a. True Positive Rate

$$\text{Accuracy} = \frac{TN+TP}{N}$$

"All True of All"

Misclassification Rate = 1 - Accuracy

$$\text{Precision} = \frac{TP}{FP+TP}$$

How precisely can the model  
predict positives?

Helpful

- ROC: Sensitivity vs False Positive Rate

- Anti-Spam, Search Engine:  
optimize for Precision or  
Specificity
- Fraud, Cancer:  
optimize for Recall